

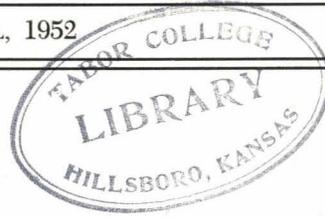
# KANSAS FISH AND GAME



VOL. IX

APRIL, 1952

No. 4



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# KANSAS FISH AND GAME

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THE KANSAS FORESTRY, FISH AND GAME COMMISSION  
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DAVE LEAHY, *Director*  
HARRY LUTZ, *Editor*

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## New Lake Being Constructed In Leavenworth County

The Leavenworth County Fish and Game Development Association, under the leadership of their president, Mr. G. G. Boling of Leavenworth, recently purchased a large tract of land located about eight miles northwest of Leavenworth, for the purpose of constructing a lake and park to be used by members of the Association and their families.

A dam, which has been completed, will impound about 12 acres of water to a maximum depth of some 25 feet. The dam is of earth, about 28 feet high and over 200 feet long. An all-weather road leads to the new park and an all-weather drive is planned entirely around the lake. A park and picnic areas will be made available below the dam. An electric line has been run to the park to furnish electricity and lights for a caretaker's home and club house, which will be built as soon as possible. They plan to have a caretaker at the lake day and night.

The money to construct this fine lake and park was raised by selling life memberships. The only other costs to members will be a nominal yearly dues. All who use the park or fish there will be required to have a state fishing license. As soon as the lake has been completed, it will be stocked with fish from the state fish hatchery at Pratt. Leavenworth county officials have co-operated in every way in helping with the roads and other improvements where possible and permissible.

The primary purpose of the Leavenworth County Association in creating this fine lake and park was to help relieve the fishing pressure on other waters. As time goes on, any surplus of money derived from new memberships will be used for construction of more such lakes. The public is invited to become members and anyone may purchase a membership in the new lake project and in the Association.

The Leavenworth County Fish and Game Development Association is to be congratulated for taking this step in helping to promote more fishing and picnicking areas in Kansas.

Ducks have an almost telescopic eyesight. They can focus their eyes for near or far vision.

## Appreciative Reader

CENTRALIA, KANSAS,  
January 9, 1952.

MR. DAVE LEAHY—Enjoy the magazine, *KANSAS FISH AND GAME* very much. Am enclosing a couple of photos of furs taken from my trap line. One of a beaver; the other, one beaver, 27 mink and 24 muskrat.

These mink were taken from quite a large territory and my travels along the woodland streams and fields tell a more complete story of the number of game birds, animals and furbearers than you could find elsewhere concerning this territory.

The number of quails I find in the "hard to get at" places are very encouraging, with plenty elsewhere with the exception of a large hail strip and there are enough there to restock. In places that are suitable, I also found a good number of pheasants.

Also notice a scattering of prairie chickens.

There is a goodly amount of fur throughout this territory. Muskrats are becoming more plentiful after remaining at a standstill for many years. Mink also seem to increase in numbers. Probably due to more waterways from wet seasons. And, of course, there are plenty of skunk, 'possum, and 'coon.

There are not as many beaver here as in other sections of Kansas. The boys had lots of fun trying to catch them, but we still have most of the beaver where they belong.

ALVIN CLEMENS.

## A Correction

In the January issue of *KANSAS FISH AND GAME*, an error was made in showing the winners at the Brittany Field Trials held at Humboldt. The winner of the Derby Stake should have been Penelope de Evanston, owned by Louis F. Oltman of North Kansas City, instead of Roscoe's Dingo de Humboldt, as was shown. The winner of the Amateur Handler's Stake should have been Tex of Richmond, owned and handled by R. Busted of Canyon, Texas, instead of Jeffrey Mac Eochaidh, as was shown. We sincerely regret the error.

The hippopotamus differs from the rhinoceros in having four instead of three toes.

## Comments on 1951 Quail Season

Here are some personal comments on the 1951 quail season, as expressed by well-known sportsmen of Atchison:

W. W. BLAIR—"More birds than I have seen in some time. Due to press of business, I only hunted five days of the open season, but had my limit before noon on each of those days. I have hunted in Alabama and several southern states, but I believe for the time hunted, we have them all beat. The 1951 season was the best we have had, in my opinion."

JESS BUNCH—"I hunted in Russell county with relatives and found the quail hunting there good."

ROY BRINK—"I have hunted quail with pointers for a good many years. I found this a good season, but did not kill as many quail this year as last. This, I believe, was due to the fact that our hunting parties were smaller this year and cover thicker and birds wilder. I found few coveys that offered good dog work after the first flush."

DON PARKER—"We found plenty of quail but found some coveys badly shot up towards the end of the season. Lots of cover."

PEN SNOWDEN—"We found lots of quail. Although we didn't always get our limit on our hunts, it wasn't because the quail weren't there. We found heavy cover and it was necessary to have dogs."

FRANK LENTZ—"I had better luck this year than ever before. I sure enjoyed myself. My dog worked better than ever."

GEORGE MICHAELS—"Quail hunters with dogs had no trouble getting limits. Those without dogs had a rough time."

A. B. STANDARD—"I had a good season. Hunted all days but three. Hunted mostly close to Atchison and no farther west than Whiting."

BERT BAUMNER—"We found plenty of quail but found the cover thick and the birds wild. I am getting too old to chase after them. Believe I will go fishing from now on." (Mr. Baumner is an old-time quail hunter, fisherman and blue rock shooter of Atchison.)

Before tucking away that pet hunting coat in mothballs and putting it in the family cedar chest, be sure to give it a coat of good canvas waterproofing such as is used for tents. This will not only preserve the material but will keep those blood-soaked places at the bottom of the game pockets from rotting.

Holes and rips in tents can be patched quickly with pieces of waterproof adhesive tape.

## Short Snorts

The badger, a member of the skunk and weasel families, can easily outdig two men armed with pickaxes and shovels.

White bass are so prolific that they spawn as many as 500,000 eggs. In comparison, black bass and many other species of game fish spawn as few as 20,000 eggs.

Although the rabbit is generally considered very much a dry land animal, the swamp rabbit, found only in a few of the southern states, takes as readily to water as any semiaquatic animal.

Fish suffer little if any pain when hooked. There are very few nerves about the jaw which would cause that sensation. Some bass have been known to be hooked two or three times in the same day by fishermen using the same type of bait. Fish, no doubt, have a sensation of discomfort, but not as great as that of the higher animals.

A young eel returns to fresh water from the ocean spawning grounds when about three inches long. It is called an elver.

Along with pins and needles, cigarettes and chewing gum, sardines are sold one at a time in China. This is because few persons can afford to buy a whole can of sea food.

The chipmunk likes to sing better than any other American animal. In fact, the little fellows have regular "singing places" where they go to sing their concerts.

Very young mussels, called glochidia, attach themselves to birds' feet and feathers and thus get a free ride to other waters.

To protect the finish of a rifle or shotgun stock from salt air or dampness, give the wood a coat or two of auto wax. Raw linseed oil rubbed into the stock will also exclude dampness and keep the fibre from raising.



J. S. Patton of Emporia, and his pointer, Jake, with a bag limit of pheasants taken in Pawnee county during the 1951 open season.

## Outdoor Notes

By JOE AUSTELL SMALL

### African Taxation

The jackal is called the "lion's provider." When on the trail of his prey, the critter's hideous calls disclose his whereabouts to the lion. Brother lion follows in the jackal's wake and drives him away from the carcass when the kill is made. Old Leo then eats his fill. If the jackal is lucky, he is able to sneak back later and clean up the scraps.

Those of us who have filled out tax forms lately know how the jackal feels.

### HAVE YOU Made The "F-R" Test?

The Western Fishing Line Co. says they have the best dad-gummed line a fisherman can buy—and they're willing to prove it! They do it in one of the most ingenious and interesting manners I've ever run across. They call it the "Finger-Rub Test." It duplicates the fishing hazards of rocks, sand, surf, rod-guide wear, etc. They'll send you free, the F-R kit which contains a sample of their famous Magi-Braid fishing line, a piece of emery cloth, and full directions. It all comes in a fishing license container, which isn't a part of the test but a courtesy on their part.

This emery cloth is rough, chum! Tie a weight to one end of the sample line. Wrap the emery cloth around your finger, then start drawing line up and down across it. Count the rubs. Then try it on any other make line and prove to yourself which line will wear longer.

It's an interesting experiment—and it doesn't take long. Full equipment comes in the kit. The license container in itself is worth its weight in Truman dollars! You can get it all free by dropping a card to Western Fishing Line Company, Dept. WS, Glendale 4, California. Ask for the "F-R" kit that old Joe Small's talking about.

No need to run short of sinkers. Cut an empty shaving cream or toothpaste tube into small squares and keep a few in your box for emergencies. Use as wrap-around sinkers.

When seining for minnows use a large piece of stale white bread to bait minnow net with. Minnows will congregate there to feed and you can catch plenty of bait.

Half a building brick with hole moulded in it is a good trotline weight.

## Handy Tips

Hooks and artificial baits by the thousands are lost by becoming snagged on submerged logs and other debris. As a tackle saver and a cuss preventer, we've found the following effective: Fasten a strong rubber band between bait and line. Ordinary heavy bands will do for smaller fish, but an inch wide band cut from an inner tube should be used for rigs for large fish.

Now when your bait snags, pull the line taut, then let go. The fully stretched rubber band, upon being suddenly released, will snap back and automatically loosen the snagged bait.

By using the following "bedroll" method, worms can be kept lively for a month and transported for long distances in the hottest weather.

Lay two thicknesses of 3' x 4' burlap on the ground. Dampen and shake out the water from enough sphagnum (florists') moss to cover the burlap to a depth of three inches. Distribute two or three hundred worms over the moss. Then fold sides and ends of burlap and roll up loosely. Wrap the damp worm roll in an outer covering of canvas or an old blanket and tie securely. When moss becomes dry, just sprinkle again and you'll have lively worms for a long time.

Stay-on hooks for dough baits: Fasten one end of a small wire to the eye of your hook (fine copper wire is excellent). Roll wire spirally downward to just above point of hook, turn end back under and pinch to hold, then apply bait.



'Coon feeds and 'coon barbecues were popular in Kansas this winter. Shown above is Al Weaver, barbecue specialist of Russell, as he prepares fourteen coons for a sportsmen's dinner held at Russell in February. The barbecue was sponsored by the Russell Rod and Gun Club.

## THE IMPORTANCE OF THE REPRODUCTIVE PHASE IN GAME BIRD PRODUCTION

By JAMES L. COATS, Game Biologist, Kansas Forestry, Fish and Game Commission

The average sportsman devotes most of his attention to the welfare of game birds during the fall of the year; to the game manager all seasons have significance. It is timely to consider what will be the proportions of the new crop of young birds resulting from the 1952 breeding season. It is possible that the operation of this vital period is not well understood by the sporting public. Therefore, this writing may serve to emphasize the important features of the reproductive phase—for the reproductive phase is the first step in the chain of events leading to the hunting season.

In Kansas we have four resident upland game birds that occur here naturally. The bobwhite quail is found in every county. The scaled quail, often called blue quail or top-knot quail, finds conditions favorable only in the southwestern corner of the state. The greater prairie chicken is found in grassland areas mainly in the eastern part of the state. The lesser prairie chicken, very similar in appearance to the greater prairie chicken, has gradually staged a partial comeback in its former range in southwestern Kansas.

In the case of birds that were introduced into Kansas from foreign countries, only the ringnecked pheasant has responded to the opportunity. This fine sporting bird is now well established in the western half of the state. This bird is the most important contribution from the technique of introducing exotic species.

In discussing the outstanding characteristics that exert a strong influence during the reproductive phase, it is important that we recognize these facts. As a rule our game birds individually lay a large number of eggs. Technically, this is considered high reproductive potential. In order to insure their perpetuation, the biological advantage of laying large clutches has developed in this group. However, as in all of nature, this ability is not perfect, but is a compromise with disadvantages. Even though an imposing number of eggs are laid, only a fraction of this potential crop survives after several weeks from the hatching date. If the first nesting attempt is disrupted subsequent clutches are smaller, but are still of sufficient size to be regarded as large. Fertility of those eggs laid in the wild usually runs well over ninety percent so that fertility is seldom a factor of significance.

Another factor of particular importance in upland game bird management is the relative short life span of these birds. Only a small number attain three or four years of age; therefore, in any one year the number of birds for hunting will be mainly determined by

the current production and to a much lesser degree by the production in the previous year. When we take to the fields in the fall, the bulk of the bag usually consists of birds hatched that spring and summer. If natural reproduction has not been successful, it is fruitless to expect many birds to be available to the gun. Abundance in the group of resident upland game birds we have in Kansas is mainly a reflection of the current crop.

Since the stage has been set by a discussion of the high reproductive potential and the short life span, let us consider the factors that operate to determine the proportions of each year's crop of young birds. In the simplest form, it is the total number of females that successfully expressed the reproductive function. As a general rule if the hens are successful in bringing off a clutch of eggs it will be substantial sized clutch. But, it is well to emphasize that it is not the total number of females available for nesting or the total number attempting to nest, but, rather, the number which actually hatches a clutch of eggs successfully.

Obviously the breeding population in the spring is the carry-over from the previous year's population. In order to have a large breeding population, there must have been a large population the previous fall. This year it appears that we have a good breeding population for 1952. In numerical size it is much smaller than our fall population but still is large for a breeding population. The lowest stage in the annual fluctuation of population size is in the breeding period. Following this low stage is the highest point which occurs at the peak of the hatching season when all the newly born chicks combine to produce a large population figure. As hatching passes its crest and begins to subside, the population begins the gradual subsidence in numbers, which will terminate with the lowest point on the annual cycle the following spring in the breeding season.

The matter of carry-over brings up a very important subject. Between the fall of the year and the following breeding season, there is a substantial reduction in the numbers of game birds. This is often called winter wasting. In some years it is quite severe. In other years, it is comparatively slight. But, it can be a very important factor which determines the size of the breeding population. In certain ways upland game bird production is like a hurdle race. It is a long series of obstacles, not just one. However, the exact causes of it and the extent of winter wasting are not well understood. In up-

land game bird literature one might run across the term "spring shuffle." A spring shuffle is an erratic movement of birds out of an area and is often given as a contributing cause to winter wasting. With quail, a spring shuffle might have a profound effect.

Therefore, it is apparent that there are countless levels of production of young birds in the hatching season. This production is a result of many factors, which are dependent upon one another and which accrue throughout the annual cycle. Some illustrations may serve to clarify what is meant. Average production may result from a small breeding population, which has good success in hatching young, since the high reproductive potential has overcome the deficit. Average production may also result from a large breeding population, which has only poor success in hatching young. However, the preceding large breeding population could have been reduced to a small one by excessive winter losses. Therefore, the proportions of the new crop of young birds will depend upon the total number of females that successfully express the reproductive function. Small isolated areas that digress from the average, have little effect on the statewide picture. Too often we try to judge the general condition of our game bird population by experiences in a small district. Those experiences may or may not reflect the general status for the state as a whole.

This entire discussion leads to the inevitable conclusion that, because of the character of the reproductive phase in the resident upland game birds in Kansas, we should expect the numbers of young birds produced each hatching season to fluctuate erratically.

The survival of the young birds is an important consideration in determining the number of birds available for hunting; but as it is a large subject in itself, it will be left for treatment at another time.

### Stinkeroo Killer

When a dog gets "skunked," he's miserable and so is everyone around him. Few people are aware of the simplest and most effective of all odor squashers—give him the vinegar works. Wash the contaminated parts with bulk vinegar. If you use the bottle vinegar and it is too weak to neutralize the odor after the first washing, rinse dog thoroughly and use it again.

Results are immediate, perfect and comforting to the dog and everyone else concerned.

By the same token, don't bury clothes that have received a direct hit by the "wood's kitty." If the vinegar wash removes some of their color, next time you will have an alternate: Which do you prefer, color or odor?

## Salina Sportsmen's Club Held Quail Clinic at Hedville

The Central Kansas Sportsmen's Association of Salina held their annual Quail Clinic on February 17, 1952, near Hedville.

Directing the clinic were Dr. Rollin Baker, biologist, and Thane Robinson, research assistant, of Kansas University, and Mr. George Filinger, Department of Horticulture, Kansas State College.

The clinic consisted of lectures by Doctor Baker, Mr. Robinson, and Mr. Filinger, followed by a field trip, in which various types of quail cover was discussed, with suggested improvements to convert visited areas into proper quail habitat.

The meeting was well attended by both farmers and sportsmen.

### The Lure

'Tis not the bass, or all that's under,  
Musky, pike, or what you wonder,  
It's the lone and lovely call  
Of solitude that beckons us all.

—James Britton, DeKalb, Ill., in  
*Tennessee Conservationist.*

The California sea lion uses its own nose for bait. It floats beneath the water with only the tip of its nose showing. When a hungry sea gull mistakes the sea lion's nose for a fish and swoops down to catch it, the bird plunges straight into the sea lion's open jaws.

"Fish and game law violators should be classed as petty sneak thieves. They pilfer property that belongs to others; they cheat honest sportsmen out of their fair chance afield; and they put tomorrow's fishing and hunting in grave peril."—*Outdoor Life Magazine.*



Typical of many Kansas fur catches the past season is the one pictured above of Alvin Clemens of Centralia. Furs shown in the picture include one beaver, 27 mink and 24 muskrats.

## Bobwhite Wings: The Story They Tell

(Condensation of manuscript prepared by ROLLIN H. BAKER and THANE S. ROBINSON, State Biological Survey of Kansas, University of Kansas.)

The bobwhite quail needs no introduction to Kansas outdoor enthusiasts. As a game species, its popularity in the state is second to none. Its abundance depends on properly regulated hunting, on the quality of its environment (food and cover), and on many other factors which operate in nature.

Bobwhite quail usually are monogamous; that is, one male mates with only one female. Pairs mate in late spring and normally begin nest building in April and May. Usually the hen lays one egg per day until there is a clutch averaging fifteen eggs. Both parents share in incubating the eggs and rearing the brood. The eggs usually hatch in twenty-three days. By June, young bobwhites and their parents are in evidence. If the nest is destroyed or if nesting activities are disrupted in any way, the old birds may nest again; if successive nests are destroyed, several attempts may be made through the summer months to produce a successful hatch. The covey is formed originally of the parent birds and their brood, but as the season progresses, two or more broods may band together, along with an occasional unmated adult. Once a successful nesting is completed, bobwhites seemingly do not attempt to nest again in that season. The trials of parenthood in bobwhites are reflected in the analysis of their wings.

Results from the study of quail wings give many interesting facts and data concerning hatching success, survival of young birds, the effects of seasonal weather on annual populations, and other factors of importance in the management, conservation and restoration of quail.

Such a scientific study was conducted this winter by

the Kansas Biological Survey at the University of Kansas and Kansas quail hunters played a helpful role in providing hundreds of wings of quail legally killed during the hunting season.

Before the start of the 1951 quail season, Dr. Rollin H. Baker, professor of zoology at the University, and a member of a group operating the Biological Survey, and his research assistant, Thane Robinson, who are making a scientific survey of the bobwhite quail in Kansas, sent out an appeal for a collection of wings for such a study. The response from the hunters was excellent. More than 1,600 wings from legally-killed birds were sent in. These wings were sent in by hunters from thirty-seven counties, most of them from the quail territory in the eastern half of the state.

The bobwhite, like many other gallinaceous birds, undergoes a definite pattern of plumage molt each year.

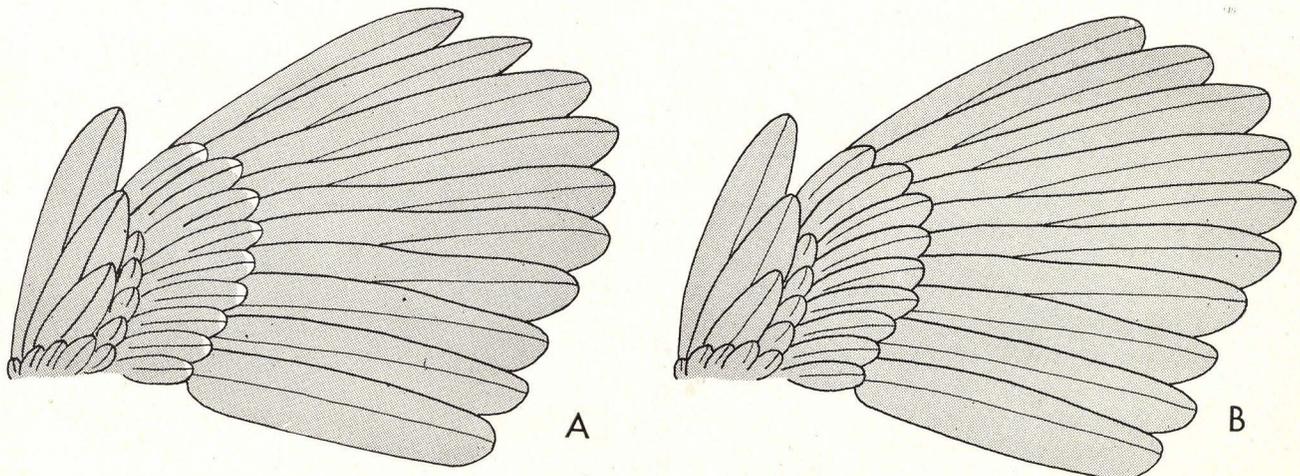
The first step in the examination of the bobwhite wings was to separate wings of birds hatched out in 1951, from wings of birds more than one year old. Separation of wings into these two age categories follows the method outlined by Leopold (1939) and is as follows:

### BIRDS OF THE YEAR OR YOUNG BIRDS (see figure a)

1. Outer two main flight feathers more pointed than the other flight feathers and showing worn tips.
2. Coverts (those feathers covering the bases of the flight feathers) with white or buffy tips.

### OLD BIRDS (see figure b)

1. Outer two main flight feathers with rounded tips and not conspicuously worn tips.
2. Coverts uniformly dark in color, without white or buffy tips.



Diagrams of right wings (dorsal views) of bobwhites showing age characteristics; (a) wing of young bobwhites; (b) wing of old bobwhites.

Here are some of the results of the study of quail wings as announced by Professor Baker and Robinson:

"Of the 1,662 wings examined at the University, 359 (21.5 percent) were from old birds and 1,305 (78.5 percent) were from young birds. Of the 1,305 wings of young birds, 1,179 had unbroken flight feathers and could be aged more accurately. The young birds included 640 (54.3 percent) more than 150 days old (at least 22 weeks old) and 538 (45.7 percent) younger than 22 weeks. The latter ranged downward in age to eight weeks when shot in the open season.

"Approximately 54 percent of the wings of the young bobwhites revealed they were more than 150 days old or hatched prior to June 29, 1951. This means that many of the 1951 population of young bobwhites were hatched before the heavy rains and floods which occurred throughout June and early July.

"Hatching dates, from the 29th of June to as late as the first week in October, indicates that many parent birds were either delayed in nest building by the rains or that they re-nested after destruction of the nest or young by natural causes, chief of which seems to have been the wet weather. The wet summer of 1951 apparently disrupted the normal nesting pattern, and hatching continued to as late as the first week in October. Also, the small number of bobwhites hatched in the first two weeks of July reflected the destructive influence of heavy rainfall on newly hatched birds. The peak in hatching which occurred in the week of July 20-July 26 indicated a return after cessation of rains to a theoretical normal rate of hatching and also indicates that little harm was done to eggs which were being incubated during the heaviest of the rain. From these data, it seems that severe rainfall may be more harmful to newly hatched bobwhites than to eggs in the nest, providing, of course, that nests are situated in well-drained areas, where flooding would not occur."

Summing up their study of the quail wings, Professor Baker and Robinson said the following significant statements can be made as concerns the Kansas quail populations:

1. The approximate ratio of 21 old birds to 79 young birds indicates clearly the high annual turnover in bobwhite populations. Young birds rapidly replace the old birds.

2. Deviations from this 21 to 79 ratio in birds taken in the fall, can be useful in predicting productivity of bobwhite populations in the following year.

3. Excessive rainfall in late spring and early summer may tend to prolong nesting activities, rather than discourage them, with more frequent late hatches and a large number of younger birds present in hunting season.

4. Heavy rainfall in the summer months is more likely to destroy newly hatched birds than to destroy eggs in the nests.

5. Less wet conditions in late spring and early summer, on the other hand should encourage an early hatch resulting in a more mature and vigorous fall population to face the open hunting season and the rigors of winter.

6. The ratio found in this study of approximately 21 old birds to 79 young birds, is a favorable age-class condition if past studies of this sort in other areas are indicative. Obviously, a high percentage of young birds must be produced each year to insure successful propagation of the species and also, to insure a good fall hunting season.

Examination of wings each year could keep us informed on the current age-ratio. If sportsmen are interested and will participate, the Kansas Biological Survey at Kansas University hopes to repeat investigations of this sort each year.

Human ears cannot hear the incessant clamor of the bat as he flits about overhead because the bat's signaling voice lies in the wave band of about 50,000 cycles or vibrations per second. Human ears can detect sound in the band from 20 to 20,000 cycles.

The dragonfly's compound eye which is composed of nearly 30,000 units, permits vision in almost all directions.

Warm, comfortable insoles for rubber waders and outdoor leather footwear can be cut from an old felt hat.



Thane S. Robinson, Kansas Biological Survey, determining the age of Kansas bobwhites by examination of wings.

## Emporian Grateful to Fish and Game Commission

A good report on hunting success during the past hunting seasons as well as grateful appreciation for activities of the Kansas Fish and Game Commission was received from Mr. J. S. Patton, former president of the Neosho Valley Hunting and Fishing Club at Emporia, and an ardent sportsman. His letter follows:

MR. DAVE LEAHY, *Director*,  
State Fish and Game Department,  
Pratt, Kansas:

DEAR MR. LEAHY—I want to take this opportunity to express my appreciation to you for mailing me a copy of the weekly press bulletin, also the copies of the KANSAS FISH AND GAME. They are both very interesting and contain much valuable information. The ones that I receive are read and passed on to friends who enjoy them and then hand them on to others who are interested in the activities of the department.

The cover picture on the last issue of KANSAS FISH AND GAME was very good. I do not believe that too much can be said about the importance of sportsmen using good retrieving dogs when in pursuit of upland game.

The past hunting season was one of, if not the best that I have enjoyed in years. Prairie chickens were plentiful in Lyon county. I saw several hundred only yesterday (in January). Secured my limit of pheasants in Pawnee county and the bag limit of mallard ducks in Edwards county in three days of hunting. Did not have any trouble bagging the daily limit of quail in Lyon county during the season. In fact, within the past week, I spent an afternoon in the country and within a couple of hours' stroll in the fields and woods, on land owned and tilled by one farmer-cattelman, I saw doves, quail, prairie chickens, squirrels, rabbits, mallards, and coyotes. In addition, during the fishing season, Mrs. Patton landed a 3½-pound bass and I took a 3¼-pound bass out of a stock pond located on an adjoining farm.

During the past season, doves, geese, ducks, prairie chickens, quail, pheasants, squirrels and rabbits were all included in my game bag. Also, Mrs. Patton and I caught a fair share of the bass, crappie, bluegill, and catfish in the Lyon County State Lake, Lake Kahola, the Cottonwood, Neosho, and other streams in this vicinity.

Activities of the State Fish and Game Department have brought about a decided improvement in the game situation. Farmers have become interested in providing cover and feed for the birds and are being careful to see that the brood stock is taken care of. However, the severe hail and heavy rainstorms in this vicinity took a heavy toll of young quail the past spring and summer in the vicinity north and east of Emporia and some restocking would be helpful, if quail for restocking purposes can be made available.

However, I must advise that not a single game protector or state fish and game representative has been encountered, either in this locality or in the western part of the state. Possibly they were not needed as I

did not observe any violation of the game laws or regulations, which speaks well of the sportsmen.

I am in hopes that you will continue to keep me on your mailing list as I do enjoy the weekly news release and KANSAS FISH AND GAME magazine very much.

Yours very truly,  
J. S. PATTON.

## Cover Picture

Kansas state parks, lakes and reservoirs offer every opportunity for recreation and relaxation. Pictured on the front cover is a young boating enthusiast getting ready to sail his boat at Kanapolis Reservoir, southwest of Salina.—Photo courtesy of Corps of Engineers, U. S. Army, Kansas City District.

## Teal Ducks Travel Far

M/Sgt. Virgil S. King, a member of the 97th Veterinary Food Inspection Detachment, stationed at Aguadulce, Panama, tells a story of interest to sportsmen in general and to duck hunters in particular.

Last December native hunters brought him two teal ducks they had shot. Both ducks were banded by wild life authorities. One duck, banded in Manitoba, Canada, wore a band stamped with a date 83 days prior to its being killed in Panama. The second, banded in South Dakota, had a band stamped 120 days previously.

Sergeant King sent the bands in to the U. S. Fish and Wildlife Service at Washington, D. C., and received from them the information about where and when the ducks had been banded.

Estimated "duck miles" between Manitoba and Panama, 2,800 miles. South Dakota: 2,775 miles.



The value of a good dog in retrieving dead or crippled game birds cannot be overemphasized. Shown above is a pointer, owned and handled by J. S. Patton of Emporia, retrieving a prairie chicken killed in Lyon county during the 1951 one-day open season.

## How to Find Fish

Fish are where you find them and, according to Heddon's research department, it's about like hunting rabbits.

For instance, you will never see a rabbit hunter sitting on a stump in the middle of a field, waiting for the game to come to him. It would be a long wait between rabbits.

And yet, how many fishermen have you seen doing this very thing, just sitting in one spot, waiting for the fish to come to them? The good rabbit hunter tries all kinds of cover until he locates his game, then he concentrates on that type of cover.

The good fisherman does the same thing, and here is the plan Heddon suggests. Start casting the shoreline with a floating diving lure like the floating River Runt. If the water is clear, start the bait moving the second it strikes the water. If the water is dingy, let it remain motionless for five or ten seconds, then start retrieving. This gives the fish time to find it when visibility is poor. Occasionally try a surface lure like a Chugger or Crazy Crawler.

If no fish are taken around the shore, then try casting from the shore into the deeper water, using a sinking bait like the Go-Deeper River Runt, which will dig right on down to the bottom.

Next, try the heavier cover, like the moss beds, weed patches or lily pad fields. Cast a slow sinking lure like the Punkinseed or River Runt next to the cover and make a steady retrieve. Then, occasionally try a jerky retrieve; also, stop and start the lure quickly, to give varied action to your plug.

Perhaps the fish are far back in the pads or weeds. This calls for a weedless lure like the Ace, Weedless Widow, or Stanley Weedless Hook with pork chunk or strip. Toss one of these lures deep into the cover



Kansas 'coon hunters spent many an enjoyable night prowling the woods with their 'coon dogs during the 1951-'52 season, as raccoons were plentiful. Pictured above is a one-night haul taken by Clifton Derringer of Topeka, and Bob Brownlee of Eskridge. They took four from one tree.

and retrieve slowly. When the fish strikes, set the hook today, tomorrow is too late.

Sunken logs, fallen trees, brush piles, small patches of cover, dropoffs, rocky shorelines are all excellent places to work. Approach quietly, don't let the fish know you are around or the big ones will give you a good "letting alone."

As a last resort when the aforementioned spots haven't produced, try this, and don't sell it short. Tie a Floating River Runt to the end of your line and about 18" away attach a keel sinker just large enough to sink the lure. Troll this slowly through the middle of the lake. The sinker will ride nicely over all types of cover while the lure will swim along behind, rarely snagging.

When you catch a fish, mark the spot well by picking landmarks in four directions, then visit this spot often, it's exclusively yours and will pay off regularly.

Fish are where you find them. Don't be a one-spot, or a one-bait fisherman. Be systematic and once you hit upon a system that works, your stringer will grow heavier and your troubles lighter.

## Leavenworth Sportsmen Held Successful Field Trial

Approximately 400 hunting-dog enthusiasts attended the Field Trial staged February 17, by the Leavenworth County Fish and Game Development Association. The trials were held over a course located on the Fort Leavenworth Military Reservation. Don Doyle served as chairman of the committee on arrangements.

Twenty-one dogs competed for prizes in the three classes of competition — all-age stakes, derby stakes, and puppy stakes. Approximately 100 quail for the event were furnished by the Kansas Forestry, Fish and Game Commission.

Results, including class, name of dog, and owner, follow:

All-age Stakes—Pat, Don Doyle, 1st; Mack, Lee McGuire, 2d; Pepsie, D. C. Keller, 3d.

Derby Stakes—Susie, John Whyte, 1st; Speck, Frank Roberts, 2d; Rex, Don Doyle, 3d.

Puppy Stakes—Mack, Truman Henderson, 1st; Gus, Charles Greever, 2d; Donna, Al Kuester, 3d.

Judging the events were Paul Leger, State Game Protector, Sergeant Meyer, and Sheriff Herb Nye.

The long bristly hairs surrounding the nostrils of seals act as instruments of touch and are useful in exploring the underwater crevices of icebergs that may shelter fish.

## HOW FAST DOES A FISH GROW

By KENNETH D. CARLANDER, Associate Professor of Zoology, Iowa State College.

Reprinted from *Outdoor Life Magazine*

How fast does a fish grow? This is a question often asked by anglers, and also by biologists and conservationists responsible for maintaining our supply of fish. The answer has considerable effect upon the rate at which fish can be safely harvested. If fish are caught faster than they can grow up, the catch decreases.

The growth rate of fish is also a valuable indicator of the suitability of a lake for fish. Many lakes have large numbers of fish which grow too slowly to be of value to sportsmen. They just never get big enough to be "keepers."

There are several methods of studying the growth rates of fish, but most biologists use the "scale method." The scales of most fish carry their life history, an autobiography which can be read by scientists. Unless scales are lost by injury or accident, a fish keeps the same ones throughout its life, and the individual scales grow with the fish, keeping him "covered." Circular ridges are formed at intervals on the surface of the scale as it grows. When the fish and its scales grow slowly or stop growing altogether, these circular ridges are closer together than when growth is rapid. Most fish grow little or not at all during the winter, and therefore there is usually a clearly marked zone for each year of life.

Another characteristic is used in recognizing this winter band, or "annulus." The portion of the scale nearest the head is covered by other scales and is buried more deeply in the skin than is the portion toward the tail. This protected part of the scale grows more during periods of slow growth than the unprotected part, and therefore it may have one or more incomplete circular ridges. When rapid growth starts again, the ends of these incomplete ridges are joined along the sides of the scale by a complete ridge. This "running together" of the incomplete ridges is one of the best methods of distinguishing annuli.

If you have a microscope or even a good magnifying glass, you can probably tell the age of the fish you catch by counting the number of annuli. Another simple way to examine the fish scales is to put them between two pieces of glass and project them with a slide projector.

Occasionally fish form "false annuli" or marks which look like winter bands but aren't. These make it extremely difficult to determine accurately the life history of some fish. Fortunately, false annuli are rather rare, and often they can be recognized by the experienced research worker.

From its scales fisheries biologists can tell not only the age of a fish but also how big it was at various

stages in its life and therefore how fast it had grown. Since the scales cover the body of a fish throughout life, the growth of a scale is proportionate to the growth of the fish, and the growth rate can be calculated from measurements on the scale.

The author has recently completed a survey of the available data on the growth rates of fresh-water fishes of North America. The average growth rates given in the accompanying table are based on studies of thousands of fish from various parts of the country. These averages are merely suggestive. The growth rates of individual fish vary greatly. The fact that a largemouthed black bass is 12 inches long does not mean that the bass is a little over three years old. Some 12-inch bass are only six months old, while others have been found to be over nine years old.

The table will give you an idea of the length a fish should be at any age, on the average. You can then estimate the age of the fish you catch and, if you examine the scales with a microscope, find out whether they grew fast or slow.

The muskellunge is the fastest growing of our fresh-water game fish, as well as the one that grows the largest. His close relative, the northern pike, runs second. Next comes the Sebago salmon and rainbow trout, when these are found in large lakes. The lake trout, walleyed pike, largemouthed black bass, and smallmouthed black bass follow in that order.

The lengths given are total lengths. That is, the maximum length of the fish is measured in a straight line (not over the curve of the body) from the tip of the snout with the mouth closed to the end of the tail with the two lobes of the tail held together. If you are from Canada, West Virginia, California, or some other place where fish are measured to the fork of the tail, multiply the lengths by 0.96 to give fork lengths if the tail is only moderately forked like that of the bass, or by 0.93 if the tail is deeply forked like that of the northern pike or Sebago salmon.

Perhaps we ought to explain the apparent decrease in size of fish as they grow older, which occasionally shows up in the table. For example, smallmouthed bass are smaller at the seventh than the sixth year, walleyes and northern pike at the fourteenth than at the thirteenth, and rock bass at the tenth than at the ninth year. The fish do not actually shrink. The decrease is merely a peculiarity of the statistics. There are comparatively few old fish upon which the average growth data can be used. These older fish are generally slow-growing fish. The fast-growing individuals seem to "burn themselves out" and seldom live as

long as their slow-growing brothers. As these fast-growing fish die out, the average size, based upon the remaining older fish, may become less.

Why do fish grow at different rates? There are a number of answers we can give to this question, and there are several places where we can only guess at the answers.

First of all, the different species of fish grow at different rates, as we have already noted. Each species has its own growth characteristics, which are inherited. No type of feeding or manipulation of the environment will make a bluegill grow like a northern pike.

Even the individuals of the same species in the same pond or lake will grow at different rates. Northern pike four months old in one pond ranged from less than five to more than twelve inches long. This individual variation may be due partly to heredity and partly to such chance occurrences as finding food at the right moment. There is evidence that in ponds the first young northrens or walleyes or bass that happen to get a chance to eat a slightly smaller brother become cannibalistic and grow much faster.

For the present discussion, though, we are not so much interested in individual variation in growth rates as in the average growth rates in different waters. Why do fish grow more slowly in one lake than in another?

Although many reasons may be given for differences in average growth in various bodies of water, two stand out to such a degree that they may almost be called biological laws. First, fish grow faster in the south than in the north. For one thing, the growing season is longer in the south. In northern Minnesota,

walleyes make all their growth from mid-May to mid-September, while in Tennessee they grow for seven months. Furthermore, within limits, growth is faster in warmer than in cooler water, so that the fish may grow faster even in a given time in the south than in the north. The phrase "within limits" is used because growth may slow up or stop as the water warms above the optimum. Trout, for example, cannot live, let alone grow, when water temperatures exceed 80 degrees F. Black bass, on the other hand, show optimum growth when the temperature is higher than 80 degrees F.

The second important factor affecting fish growth rate is one referred to by fisheries biologists as population density. By this term is meant the abundance of fish compared to the available food and space. If a lake will support, say, 200 pounds of fish to the acre, the fish will grow faster if there are only 400 fish to the acre than if there are 1,500.

The effect of population density on fish growth is most pronounced in new lakes or new reservoirs, or in lakes that have had no fish before. When suitable fish are first planted in these waters, they show phenomenal growth, often reaching a given size in about half the average time. In some studies on fish ponds it was found that the growth almost completely stopped when the fish population became too dense.

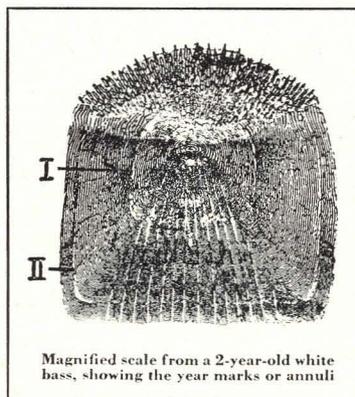
Probably the main cause of poor fishing in warm-water lakes is overabundance of fish and the resulting slow growth.

A study of the table indicates that the growth of fish is most rapid in the first few years of life; the increase in length is generally less in later years.

**GROWTH RATES OF FRESH-WATER FISH OF THE UNITED STATES AND CANADA**

Total length in inches at each year of life

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
Muskellunge	7.9	15.2	21.0	26.2	30.3	33.5	37.2	41.2	43.4	45.7	47.2	48.9	50.3	51.9	53.5	53.6	55.8	56.3	57.5	58.0					
Northern pike	7.3	12.6	16.7	20.3	23.2	26.4	29.1	31.7	33.7	36.4	39.0	39.4	40.7	37.3	35.3	37.1	38.6	39.9	40.9	43.6	44.1	45.0	47.2	48.4	
Chain pickerel	7.1	11.1	14.0	16.4	18.4	20.4																			
Wall-eye	5.6	9.7	12.7	15.1	17.1	18.7	20.4	22.1	23.9	24.5	25.4	27.3	29.3	28.5	32.1										
Sauger	6.0	9.9	11.4	12.0	13.1	14.4	14.4	14.6	15.4	15.4															
Yellow perch	2.8	5.1	6.8	8.1	9.2	9.9	10.6	10.9	11.9	11.8	12.2														
Bluegill	1.8	3.5	5.1	6.2	6.9	8.3	9.2	10.3																	
Rock bass	1.5	2.6	3.7	4.6	5.7	7.1	7.6	8.6	8.7	8.6	9.0														
White crappie	2.9	6.2	8.3	9.9	11.2	11.4	12.6	15.3																	
Black crappie	3.1	6.5	8.5	9.6	11.2	11.2	12.5	12.8	14.0																
Smallmouth black bass	3.8	7.2	9.9	12.1	14.3	15.7	15.5	15.9	16.2	16.9	17.5														
Largemouth black bass	4.9	8.9	11.4	13.6	15.2	16.7	18.0	19.3	19.9	21.1	28.1														
White bass	5.9	9.9	12.3	13.9	14.2	15.0	15.1	16.1	16.2																
Yellow bass	3.7	6.5	8.2	9.2	9.3																				
Brook trout	3.7	5.8	7.2	12.9																					
Cutthroat trout	4.2	6.4	9.2	11.9	12.9	18.8																			
Rainbow trout	3.9	7.8	13.3	17.1	20.7	24.0	29.9																		
Golden trout	1.8	5.4	8.2	9.7	10.2																				
Brown trout	4.2	8.0	11.1	14.0	17.6	20.0	22.0																		
Lake trout	5.2	8.0	10.7	14.1	16.5	19.2	22.3	24.9	26.9	28.3															
Sebago salmon	2.1	4.9	12.9	17.3	19.6																				



Magnified scale from a 2-year-old white bass, showing the year marks or annuli

Cut Courtesy Wyoming Wild Life

## Fishing— Tonic for Frayed Nerves

By R. W. Eschmeyer, Executive Vice-President,  
Sport Fishing Institute

Does your route to work pass along a lake or a stream? If it does, the chances are that you often see able bodied men out in the water or on the bank, busy casting their lures. They are so intent on their activity that they don't even see your car go by. You rush to work to do your part in the present emergency—they simply cast their lures!

There was a time when these activities might have reminded us of Nero's fiddling while Rome was aflame. But now we see no resemblance, because we know that the fellow who spends his "off" day on his favorite lake or stream will probably be doing his regular job a little better because of his angling.

Fishing has played an important part in our lives ever since the settlers first came to America. There have been many changes in our way of living since those early days, but angling continues to make its contribution to human well-being. In the early days fishing meant fresh meat for the table, today it's a tonic for frayed nerves.

To our ancestors, each work day brought with it a new physical challenge. There was new ground to be cleared, or corn to be planted, and many other arduous chores to perform, all with the aid of but moderately primitive equipment. Plowing then was not so simple as sitting at the wheel of an iron horse while the Diesel-powered vehicle prepared the soil in a hurry.

Then there was also the problem of harvesting crops, mostly by hand, and of guarding the fields against depredations of wild animals. Truly, each day meant long hours of physical labor, but the routine was relatively simple. No great amount of nervous energy

or mental exercise was needed to clear land for cultivation, nor to plant corn.

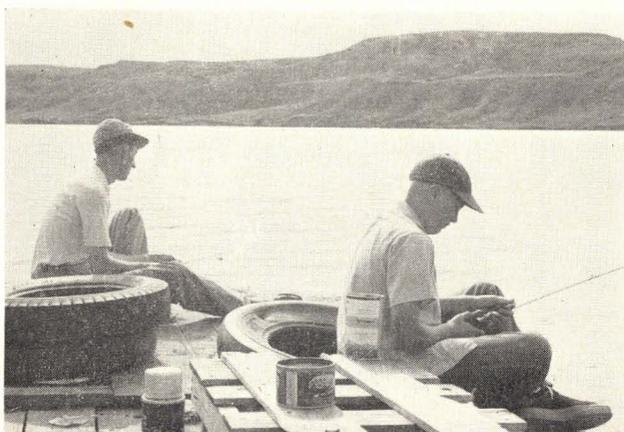
Now, however, a few generations later, a day's routine for the average person is decidedly different. At an early hour the shrill clamor of an alarm clock jerks us to our feet. Clock makers have done much to give the alarm a soft, soothing tone, but anything that reminds us of another busy day will never be considered pleasant.

Once we are up, there is the race against time; we must dress hurriedly, eat our breakfast even more hurriedly, and then fight the traffic to our office, shop, or factory. Here, as likely as not, our work will be mental. Our efforts will be directed toward selling others certain goods or ideas, and toward offering the necessary sales resistance toward those who happen to have similar designs on us. The noon meal will usually be eaten "in conference." At quitting time we have another try at outwitting our fellow drivers who are likewise in a hurry to get home. Then, after a day of contacts, comes the social "hour" which involves more contacts, and which has a way of extending through several hundred minutes instead of the sixty which normally constitute an hour. After a little sleep the mechanical contrivance on the dresser lets go with another blast. . . .

The shift in our mode of living since pioneer days has been an extreme one. In the early days there was a tendency toward too much physical exertion, but today the problem is one of trying to avoid nervous exhaustion. Our manner of life has changed decidedly but our bodies differ little, if any, from those of our ancestors. Several generations ago folks were often plagued by disease; developments in medicine have since done much to lengthen the average life span. But our present pace is taking its toll. Mental ailments, heart disease, and gastric troubles are on the increase. Apparently, our bodies weren't built for the present tempo of living. We are living too fast.

In the old days the hard working pioneers went fishing rather often, but they were interested solely in getting meat for the table. They used any method of capture which would help them reach their objective. Fish supplies were abundant because there were few people to harvest them. Refrigeration was unknown. Fish, as a supply of fresh meat, contributed much toward solving their food problem.

Today there is plenty of meat. We need only to go to the nearest market to get any of a dozen or more kinds. Fish are available, too, and they can be bought already cleaned. We no longer need to fish for meat as our ancestors did. But angling is even more important today than it was in the early days



No ulcers or other troubles in this picture! Angling provides the mental relaxation that is necessary in the modern world.

because it furnishes healthful and badly needed relaxation.

Angling does provide mental relaxation. While trying to entice the fish to take his hook, a man's mind is at ease. He forgets all about his daily struggle to "keep up with the Jones'," or to get ahead of them if possible. While angling, he can think of his business competitors as normal human beings, if he bothers to think of them at all. While playing a fish he can even forget whether he is a Democrat or a Republican. He is at peace with the world—a peace which he seldom finds in his normal daily routine.

Angling can do more than rest our nerves; it may give us a better perspective. The fellow who can "get away from it all" every now and then will probably be thinking on a more even keel, he will be a little easier to live with, and he might even lengthen his life span a bit. The number of fish in the creel or on the stringer is no longer a measure of our success at angling. If the trip brought temporary relaxation and contentment, it was definitely a success.

Fishing is important in normal times; in abnormal times like these it is even more significant. It's a nerve tonic which we can recommend without reservation. Twenty million Americans are taking it, and the number of "addicts" is increasing. Before taking your next dose, remember that the wife has nerves too. The next generation may face an even more complicated future, and the kid who learns to enjoy fishing will be a little better equipped to face it. So, take the whole family. There's a possibility that these amateurs will catch more fish than you do, but that's no excuse for leaving them at home. Simply console yourself by remembering that the number of fish in the creel or on the stringer is no longer a measure of your angling success. Your objective is relaxation—not meat!

### El Dorado Club Sponsors Clinic on Fish Culture

On January 30, 1952, The Walnut Valley Wildlife Association of El Dorado sponsored a clinic on fish culture and stream and pond improvement at El Dorado. The clinic was directed by Dr. Frank Cross, ichthyologist of Kansas University, who is doing some fresh water fish research for the Kansas Biological Survey of the University.

According to Fritz Nicodemus, secretary of the El Dorado club, there was considerable interest in the clinic.

The newly-born kangaroo is only about an inch long and is semitransparent as an earthworm.

### Young Emporia Anglers Will Have Place to Fish

Thanks to the Neosho Valley Hunting and Fishing Club of Emporia, kiddies of that city will have a place to fish this summer. The club is sponsoring the improvement of Peter Pan lake in Emporia, for kid's fishing only.

Some of the work being done at the lake includes filling in the sides so kids can fish without danger of falling in; building a peninsula out into the lake for greater access by fishermen; removal of about 10,700 cubic yards of silt to deepen the lake, and riprapping along edges of lake to prevent washing of soil. As soon as the work is completed, the lake will be stocked with fish.

Fishing by children up to sixteen years of age will be permitted.

The chameleon has a tongue twice as long as its body.

The bald eagle was adopted as our national emblem by the Congress on June 20, 1782.



Eddie Shirley and Roy Shirley, of Emporia, have ample proof that fishing is good around Emporia in the wintertime. The man-sized flat-head was caught on a rod and reel in the Cottonwood river in January.

**ARRESTS--OCTOBER, 1951**

Name	Address	Offense	Fine
A. A. Alexander	Russell	Shoot jacksnipe in closed season	\$50.00
Leonard Alford	Sedan	Hunt quail in closed season	25.00
LeRoy Arnold	Borger, Texas	Possession of pheasant	50.00
Bruce Ball	Cheney	Exceeding limit of prairie chicken	50.00
Bud Bates	Wichita	Attempt to kill pheasant in closed season	25.00
Eddie Biffle	Wichita	No hunting license	10.00
Darrel Burt	Minneapolis	No hunting license	5.00
Reo W. Capps	Clafin	Hunt pheasants in closed season	100.00
Monte Carpenter	Hutchinson	No fishing license	5.00
Glenn Coffman	Dearing	No hunting license	5.00
Neal Cole	Norton	No hunting license, take pheasants in closed season	35.00
R. L. Croan	Selma	Illegal possession of seine	10.00
Reece Daniels	Burden	Kill prairie chickens in closed season	10.00
Charles Deiter	Hunter	No fishing license	5.00
Lloyd Eickhoff	Hiawatha	No fishing license	5.00
Ernest Fagin	Joplin, Mo.	Misrepresentation	25.00
Wesley Fogel	Wichita	No hunting license, killing rabbits in closed season	10.00
Jack Fogle	Coffeyville	No hunting license	5.00
Bruce J. Grinnell	Great Bend	Unplugged gun	25.00
Harold Hadle	Kansas City	Late shooting	10.00
Dean L. Harberts	Shreveport, La.	No hunting license, possession of pheasant	200.00
Ralph D. Harberts	Wakeeney	No hunting license, possession of pheasant	225.00
Joe L. Harr	Great Bend	Late shooting	25.00
Howard Harris	Kingman	Dynamiting fish	75.00
Vollie E. Jolly	Jasper, Texas	No hunting license (nonresident)	25.00
Herbert Jordan	Coffeyville	No fishing license	5.00
Joseph C. Lackey	Hays	Possession of pheasant	95.00
Kenneth E. Lennen	Lyons	Kill grebe in closed season	25.00
Homer Lowry	Great Bend	Attempt to take pheasant in closed season	25.00
Kenneth McCann	Sedan	Hunt quail in closed season	25.00
H. I. Markle	Salina	No fishing license	5.00
H. I. Markle, Jr.	Salina	No fishing license	5.00
W. Ray Maxwell	Wichita	Exceeding limit on prairie chickens	75.00
H. R. Middlesworth	Burden	Kill prairie chickens in closed season	10.00
Fred R. Morgan	Topeka	Late shooting, unplugged gun	25.00
Kenneth P. Murdock	Garden City	Possession of pheasant, no hunting license	35.00
G. Normington	Long Beach, Cal.	No hunting license, hunt pheasants in closed season	110.00
Dale Pfeiffer	Walker	No hunting license, hunt rabbits in closed season	20.00
Alex Rader	Wichita	Exceeding limit on prairie chickens	50.00
Cyril Ruder	Russell	Unplugged gun	25.00
Delmar J. Rupp	Wichita	Possession of pheasants, no hunting license	105.00
Marvin Lee Ryherd	Kansas City	No hunting license	5.00
James Schmidt	Topeka	Late shooting, unplugged gun	25.00
Merle Donald Seibert	Parsons	No hunting license	5.00
Charles Q. Sellens	Russell	Unplugged gun	25.00
Walter Shamburg	McCracken	Possession of short bass	10.00
Albert Smedley	Thayer	Dynamiting fish	75.00
Louis Stowell	Chanute	Dynamiting fish	75.00
Hugh A. Timmons	Kansas City	Kill ducks in closed season, possess coot in closed season	50.00
Richard Timmons	Kansas City	Kill ducks in closed season, possess coot in closed season	50.00
Alvin T. Walker	Ogallah	No hunting license, possession of pheasant	100.00
W. L. Walker, Jr.	Liberal	Kill pheasant, shoot from motorcar, shoot bird while sitting	70.00
Mary Watkins	Wichita	Possession of pheasants, no hunting license	45.00
L. E. Wheeler	Earlton	Dynamiting fish	75.00
L. G. Wheeler	Manter	Possession of pheasant	10.00
Oakley Whittaker	Anthony	Dynamiting fish	75.00
Andy Williams	Liberal	Kill pheasant, shoot bird while sitting	70.00
Levi Williams	Mission	Hunt prairie chickens in closed season, no hunting license	15.00
James Jones	Topeka	Possess muskrat in closed season	20.00
Charles Scott	Salina	No hunting license	5.00
Robert E. Stalkfleet	Lawrence	No duck stamp, no hunting license	5.00
Lester E. Taylor	Parsons	No hunting license	5.00
Frank Warta	Salina	No hunting license	5.00
Frank Warta	Salina	Hunt pheasants in closed season	25.00
John Zook	St. Joseph, Mo.	No hunting license	5.00

**ARRESTS--NOVEMBER, 1951**

Name	Address	Offense	Fine
C. C. Adams	Caney	Kill pheasant from highway and in closed county	\$35.00
A. M. Alexander	Russell	Kill pheasant 8:20 a. m.	25.00
Garrell E. Allen	Leavenworth	Possess quail in closed season	25.00
Leonard Allen	Atchison	No hunting license	5.00
Leo Anderson	Bonner Springs	Kill coon in closed season	10.00
B. R. Apfeld	Pittsburg	Shoot quail out of season	75.00

Name	Address	Offense	Fine
Virgil Schultheiss	Cherryvale	Possess quail out of season	100.00
John Scarbrough	Pratt	Shoot pheasant out of season	10.00
Raymond Schlesner	Bushong	No hunting license	5.00
Glen C. Archer	Oklahoma City, Okla.	Misrepresentation	15.00
Rollin Ashley	Phillipsburg	Possess hen pheasant	5.00
Lester Barnburg	Herndon	No hunting license	15.00
Virgil Bassett	Kansas City, Mo.	Misrepresentation	5.00
Gayle Bickel	Topeka	Possess quail out of season	25.00
Oscar B. Blick	Sharon	Shoot quail out of season	10.00
John H. Boller	Natoma	Possess hen pheasant in closed season	45.00
Lewis Boone, Jr.	Kansas City	Disturbing the peace	5.00
John W. Buckner	Osborne	Quail and hen pheasant in closed season	50.00
Lee Buford	Atchison	No hunting license	5.00
Bill O'Byrne	Picher, Okla.	No hunting license	15.00
Charles R. Caesar	Wichita	Kill rabbits in closed season	10.00
Napoleon J. Campbell	Kansas City	Possess hen pheasant	10.00
Tommy Comstock	Cedar Vale	Possess quail in closed season	25.00
Melvin Cooper	Wichita	Kill rabbits in closed season	10.00
Lindley Cox	Scottsville	No hunting license	25.00
Ben Craig	Carbondale	Possess quail out of season, no hunting license	30.00
John Cukjati	Englevale	Hunt rabbits in closed season	10.00
Charles Dalton	Mulberry	Hunt quail and rabbits in closed season	60.00
Eldon L. Dalton	Mulberry	No hunting license, hunt quail and rabbits out of season	65.00
Joe Danubio	Kansas City, Mo.	Misrepresentation	5.00
Harold I. Davis	Coffeyville	No hunting license	25.00
Jimmie G. Deplasito	Kansas City, Mo.	Misrepresentation	5.00
Howard Dierking	Agra	No hunting license	5.00
Walter A. Dreiling	Wichita	Killing rabbits and pheasants in closed season	100.00
Marion C. Doty	Hoisington	Late duck shooting	25.00
Glenn D. Flesch	Wichita	Take rabbits in closed season	25.00
Clifton Flourney	Hoisington	Late duck shooting	25.00
Lee Flott	Sabetha	Late duck shooting, unplugged gun	25.00
Dalton Gannon	Sunflower	Shoot ducks while not on wing, unplugged gun	10.00
Julius Edward Gerken	Wichita	No hunting license, hunt pheasants in closed season	35.00
Harry Gibbons	Wichita	Trespassing	50.00
Howard Goddard	Florence	Late duck shooting	25.00
William Gooch	Rozel	Possess fur-bearers in closed season and no trapping license,	30.00
R. C. Griffith	Redfield	No hunting license	10.00
Jack Hageman	Towner, Colo.	No hunting license	10.00
Elmer E. Hasty	Leavenworth	No hunting license	5.00
W. B. Haworth	Hoisington	Pursue ducks with motor boat	25.00
Clarence Hermreck	Wichita	Kill hen pheasant	25.00
Newman W. Hood	Wichita	Kill rabbits in closed season	10.00
Howard Huddleston	Towner, Colo.	Late duck shooting	10.00
Manley S. Jackson	Oswego	Trespassing	5.00
Milan Jackson	Newton	Kill pheasant in closed season	50.00
Robert C. Jackson	Oswego	Trespassing, no hunting license	10.00
Louis P. Jimenez	Wichita	No hunting license, kill rabbits out of season	20.00
Kenneth Keeney	Arcadia	No hunting license	5.00
George Kiniard	Kansas City	Shoot quail out of season	10.00
Albert E. Kirk	Hutchinson	Possession of pheasant out of season, shooting from auto	30.00
A. D. Koch	Washington	No hunting license	10.00
Elsworth LeBeau	Norton	Take hen pheasant in closed season	25.00
John Levra	Arma	Trespassing	5.00
Dale Lincoln	Medicine Lodge	No hunting license	5.00
R. L. Linenberger	Garden City	Possess pheasants out of season	100.00
Alam Lomax	Topeka	Late duck shooting	10.00
J. H. Long	Manhattan	No hunting license	5.00
E. L. McConnel	Topeka	Shoot pheasant not in flight, shoot from auto	100.00
John McGrew	Council Grove	Kill prairie chicken, possess prairie chicken	20.00
G. P. McNaughton	Miami, Okla.	No hunting license, no quail stamp	50.00
Albert J. Mader	Garden City	Hunting from auto, no hunting license	35.00
C. A. Martin	Dallas, Texas	No hunting license	5.00
Robert Morris	Arcadia	No hunting license, kill rabbits out of season	15.00
Denorvard V. Muse	Kansas City	No hunting license	5.00
Walter A. Nash	Salina	Shooting from auto	5.00
Elmer T. Paterson	Oklahoma City, Okla.	Misrepresentation	15.00
B. F. Phillips	Pittsburg	Shoot quail out of season	75.00
Joe Piper	Norton	Take hen pheasant out of season	25.00
Bill Earl Pliley	Picher, Okla.	No hunting license	20.00
Harold Pruitt	Oswego	Trespassing, no hunting license	10.00
C. L. Reimer	Sharon Springs	Shoot hen pheasant in closed season	25.00
Forest E. Replogle	Wichita	No hunting license, kill game animals in closed season	10.00
William Ripple	Herndon	No hunting license	15.00
Clifford Rockley	Kansas City	Shoot quail in closed season	10.00
Morris Romero	Newton	Possess rabbits out of season	25.00
Ross D. Sager	Wichita	No trapping license, kill fur-bearing animals out of season	30.00
Melvin D. Sailers	Benkelman, Neb.	Shoot pheasant out of season	10.00

Name	Address	Offense	Fine
Leo Scripsick	Sharon	Shoot quail out of season	10.00
Herbert E. Shaede	Wichita	No hunting license, hunt pheasants out of season	35.00
Clyde Smyth	McPherson	Possess hen pheasant in closed season	50.00
Harold E. Sperry	Wichita	Take rabbits and quail in closed season	35.00
George Stephenson	Coldwater	Trespassing, impersonating an officer, hunting from public road	50.00
Earl Stum	Towner, Colo.	No hunting license	10.00
Clyde W. Sweeden	Olathe	No hunting license or duck stamp	10.00
Bill Sweeten	Picher, Okla.	No hunting license	20.00
Charles R. Taylor	Scott City	Late shooting	10.00
Ralph Teeter	Ulysses	Early hunting	25.00
Charley F. Todd	Great Bend	Late duck shooting	25.00
Ben F. Upshaw	Ulysses	Early hunting	25.00
Ferrell Vogt	Liberal	Possess two hen pheasants	50.00
J. R. Voth	Buehler	Pheasant shooting	100.00
Earl W. Wallace	Garden City	Possession of swan	45.00
Kenneth Whitebread	Carrol, Neb.	No hunting license	15.00

## ARRESTS--DECEMBER, 1951

Name	Address	Offense	Fine
J. K. Graham	Cummings	No hunting license	\$5.00
Lester Grahm	Rushville, Mo.	No hunting license	20.00
Kermet Capp	Wichita	Shoot game birds out of season, no quail stamp	20.00
Robert C. Shores	El Dorado	No hunting license, possession of squirrel out of season, hunt rabbits after 4:00 p. m.	35.00
C. N. Stoughton	Wichita	No hunting license, hunt rabbits after 4:00 p. m.	35.00
U. J. Danley	Treece	Take fur-bearers out of season	25.00
Ed Fisher	Mulberry	Possess muskrat pelts out of season	10.00
Roy R. Garrett	Leavenworth	No hunting license	5.00
Leonard Mayfield	McDonald	Attempt to take pheasants out of season	10.00
Alfred Koch	Dawson, Neb.	No hunting license	20.00
Jess Longane	Bancroft	No hunting license, no quail stamp	20.00
E. H. Henry	Wichita	Hunt from public road	10.00
Myrel Howard	Wichita	Illegal transportation of deer into Kansas	125.00
Floyd W. Pendley	Miami, Okla.	No hunting license	20.00
Dewey Benshoff, Jr.	Arkansas City	Hunt rabbits out of season	10.00
George R. Poull	Cherryvale	Possess duck out of season	25.00
Charles Bradford	Morgantown	Hunt rabbits out of season	10.00
Capt. J. R. Couch	Fort Leavenworth	Hunt squirrels and rabbits out of season	10.00
Maurice L. Kern	Leavenworth	Hunt quail and rabbits out of season	15.00
E. F. West	Leavenworth	Hunt rabbits out of season	10.00
Kenneth Barbee	Kansas City	Hunt rabbits out of season	10.00
H. L. Webb	Kansas City	Hunt rabbits out of season	10.00
Gary Keeny	Sedan	Trespassing	5.00
J. P. Klingner	Leavenworth	Hunt rabbits out of season	10.00
Jimmy Keeny	Sedan	Trespassing	5.00
Paul Keeny	Sedan	Trespassing	5.00
W. L. Webb	Emporia	Hunt rabbits out of season	10.00
Frank Wilson	Augusta	No hunting license	10.00
George Kent	Garnett	No hunting license	5.00
Jerry Kent	Garnett	No hunting license	5.00
Ray M. Williams	Topeka	Exceed daily bag limit of ducks	100.00
Glen C. White	Independence	Shoot game birds from highway	5.00
Pfc. John E. Brown	Fort Leavenworth	Hunt rabbits out of season—(Pfc. Brown has 14 days restricted duty and 14 days added duty)	100.00
Stanley Weber	Garrison	Possess quail and pheasant out of season	45.00
Francis Petitjean	Bavaria	Shoot ducks out of season	10.00
Anthony Anzek	Kansas City	Hunt rabbits out of season	5.00
Rudy Wenger	Powhattan	No hunting license	5.00
John W. Moore	Monticello, Ark.	No trapping license, possess fur-bearer	5.00
William C. McClurg	Basehor	No hunting license	5.00
Ovarl Gould	Hutchinson	Possess quail and pheasant out of season	25.00
Bob Tharp	Hutchinson	Possess quail and pheasant out of season	25.00
Lee Linder	Turon	Buying furs at other places other than place of business	25.00
Donald Sechler	Robinson	No hunting license	5.00
Bob Short	Lyons	No hunting license	5.00
John G. Fagan	Barnes	Possess pheasant in closed season	15.00
D. O. Parker	Barnes	Possess pheasant in closed season	15.00
A. R. McDaniels	Leavenworth	No hunting license	5.00
J. H. McAnulty	Wichita	No hunting license, hunt squirrel out of season	30.00
Ralph Struthers	Clearwater	No hunting license, kill pheasant out of season	50.00
R. F. Milburn	Topeka	No hunting license	5.00
Bob Peterson	Topeka	No hunting license	5.00
Virgil E. Miller	Kansas City, Mo.	No hunting license	10.00

## An Indian Prayer

*This simple prayer which voices the fault and need of the white man in regard to his attitude to the soil was delivered by an Indian at a Conference in Oklahoma. It was printed in the Summer issue of THE LAND. It came to our attention when it appeared a short time ago in the North Dakota Lutheran RURAL LIFE.—Editor, NORTH DAKOTA OUTDOORS.*

**H**EAR US, oh Great Spirit in the sky. Our people are very old people. We lived in this land thousands of moons before the White Man came. His way of life differed from ours. For many seasons there was bitter strife between us. Now there is peace but the heart of the Red Man is sad, for the White Man has destroyed many of Nature's most bountiful gifts and has forgotten that all things come from Mother Earth and go back to her.

We lived simply and near to the earth. In the voices of the earth and the running waters and the wind in the sky we heard the sayings of the Great Spirit who made all things and gave them to us. From the muskrat and beaver and squirrel we learned of the coming seasons. When the waterfowl flew north we knew that soon the snows would fade and the little streams would run again. We watched the wolf and deer and rabbit and the fish in the streams and learned how they live and how all man should live, even though they have great knowledge of books and machines. We knew how food comes from the earth, and that the sap of plants and trees was like milk which the babe draws from its mother's breast. We knew that the Great Spirit would not have us make wounds in the tender flesh of the land or destroy the way of growing things. We lived happily in a land where grass and trees never failed for thousands of moons and where meat and skins were plentiful.

Sad were our hearts when the White Man made great wounds in the earth in his haste to take riches from the soil of our fathers. From these wounds gushed the reddened waters—life blood of our land—into the streams and on to the Father of Waters. We were sad, for in the wisdom of a thousand moons we knew that when the water runs red or brown our land is losing its strength and our grass and trees wither. We knew that in a few short years the work of nature for thousands of years would be no more.

Oh, Great Spirit, bring to our white brothers the wisdom of nature and knowledge that if her laws are obeyed this land will again flourish and grasses and trees grow as before. Guide those who through their councils seek to spread the wisdom of their leaders to all people. Heal the raw wounds in the earth and restore our clear and beautiful streams. Bring again the sparkling waters from our springs and restore to our soil the richness which strengthens men's bodies and makes them wise in their councils. Bring to all the knowledge that great cities which are planned live only through the bounty of the good earth beyond their paved streets and towers of stone and steel.

*From North Dakota Outdoors.*

## *Where Are We?*

The development and progress of any civilization is unquestionably hinged directly on the way it uses its natural resources. This development, in all the great civilizations of the world, has followed a definite cycle—from Bondage right back to Bondage. The concern of the people about our natural resources follows a parallel cycle. Here are the steps in a cycle in numerical order:

1. From bondage to spiritual faith.
2. From spiritual faith to great courage.
3. From courage to liberty.
4. From liberty to abundance.
5. From abundance to selfishness.
6. From selfishness to complacency.
7. From complacency to apathy.
8. From apathy to dependency.
9. From dependency to bondage.

In little more than three generations we have already traveled more than half way through the list.

—*Outdoor American.*

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